

## CLAIMS

1. A chip (24) card (C) reader for a card of rectangular shape whose face (14), called the main face, includes:

- a set (P) of electrical contact pads (pi), of which the dimensions and the position on the main face of the card are standardised; and

- over all of its surface, or any part that is not occupied by the contact set (P), visual information (28), in particular for customising of the card according to its use, identifying its issuing authority or for advertising purposes;

of the type that includes a housing, the body (32, 34) of which defines a horizontal slot (30) for the introduction of the card (C) into a functional position in relation to the housing;

and of the type which includes at least one electrical connector (40) for connection with the pads (pi) of the card (C) when the latter is in its functional contact position, and at least one electronic component performing an interface function between the card and a terminal device to which the reader is connected,

characterised in that the electrical connector (40) and the said electronic component form part of a set (G) of electrical components (40, 48) and/or electronic components (46) which, when the card (C) is in its functional position, is located substantially above of the contact set (P),

and in that the parts (58) of the body (32) of the housing (10) which extend above the main face (14) of the card (C), outside of the location area (50) of the component set (G), are made of a transparent material.

2. A reader according to claim 1, characterised in that the body (32, 34) of the housing (10) includes two opposing longitudinal slides (36) which delimit the horizontal slot (30) for introduction and longitudinal guidance of the card (C) in the housing (10), and a transverse extremity (38) constituting an end-stop with which a front transverse edge (20) of the card (C) comes into contact in order to establish the functional position of the card in relation to the housing.

3. A reader according to the preceding claim, characterised in that the location area (50) of the component set (G) is connected to the slides (36) by means of two opposing upper arms (58) which extend generally in a transverse direction.

4. A reader according to the preceding claim, characterised in that the average width of each connecting arm (58) is substantially equal to the length of the associated slide (36).

5. A reader according to either of claims 3 or 4, characterised in that the length of the slide (36) is less than the length of the card (C).

6. A reader according to the preceding claim, characterised in that the length of the slide (36) is

substantially equal to a third of the length of the card (C).

7. A reader according to either of claims 5 or 6, characterised in that the slides (36) are displaced  
5 longitudinally to the rear in relation to the front transverse edge (20) of the card (C) when the latter is in its functional position.

8. A reader according to any of claims 3 to 7, characterised in that the component set (G) is placed  
10 at the longitudinal front extremity of the housing (10), and in that the two upper connecting arms (58) extend, substantially in a V shape, to the rear from the location area (50) of the component set (G).

9. A reader according to any of the preceding  
15 claims, characterised in that the location area (50) of the component set (G) is a recess formed in a central part of the upper wall (32) of the housing (10), which is made of transparent material.

10. A reader according to any of the preceding  
20 claims, characterised in that the upper wall (32) of the housing is created by moulding in a transparent plastic material.

11. A reader according to any of the preceding  
25 claims, characterised in that it includes a lower wall (34) which extends transversally between the slides (36) and which is made of transparent material.

12. A reader according to the preceding claim, characterised in that the lower wall (36) of the  
30 housing is created by moulding in a transparent plastic material.

13. A reader according to any of the preceding claims, characterised in that the maximum transverse width of the component set (G) is substantially equal to the transverse width of the contact set (P).

5        14. A housing according to any of the preceding claims, characterised in that the transverse width of the electrical connector is substantially equal to the transverse width of the contact set (P).

10        15. A reader according to any of the preceding claims, characterised in that the component set includes a support board in an insulating material (PCB) of substantially rectangular outline, which is located above the contact set (P), substantially at right angles with the latter, and which carries the  
15        components (40, 46, 48) of the component set (G).

16. A reader according to the preceding claim, characterised in that the support board is a printed circuit board.

20        17. A reader according to the preceding claim, characterised in that the electrical connector (40) is mounted below the bottom face (42) of the printed circuit board (PCB), and in that the other components (46, 48) are arranged on the top face (44) of the printed circuit board (PCB).

25        18. A reader according to claim 15, characterised in that the support board belongs to the electrical connector (40), and in that the other components (46, 48) are arranged on the top face (44) of the support board.

30        19. A reader according to any of claims 15 to 18, taken together with claim 8, characterised in that the

top face (44) of the support board (PCB) carries at least one warning light (48) which is visible from the outside through the housing (32).

5        20. A reader according to any of claims 15 to 19, taken together with either of claims 13 or 14, characterised in that the transverse width of the support board (PCB) is substantially equal to the transverse width of the contact set (P).

10       20. A reader according to any of claims 15 to 20, characterised in that the transverse rear edge (47) of the printed circuit board (PCB) is located substantially at right angles with the transverse rear edge of the contact set (P).

15       21. A reader according to any of claims 15 to 21, characterised in that the support board (PCB) extends longitudinally to the front beyond the front transverse edge of the contact set (P).

20       23. A reader according to any of claims 15 to 22, characterised in that the front transverse extremity of the support board (PCB) includes resources (54) for the connection of the component set with a cable (12) for connection of the housing to a terminal device to which the reader is connected.